

# Cypress™

## Cypress Tech Talk

March 26, 2019



**MITRE**

The Office of the National Coordinator for  
Health Information Technology



# Agenda

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- Software Updates
  - Cypress Validation Utility + Calculation Check (CVU+)
  - Bring Your Own Patient Feature
  - Multi-measure Feature
  - Multi-measure Test Creation Demo
- Recent Issues
  - Record Sample Bugs: CYPRESS-1619, CYPRESS-1627, CYPRESS-1629
- Cypress Versions
- Open Discussion
- Contact Information

# Cypress Validation Utility + Calculation Check (CVU+)

- **Cypress v5 will include a new set of features called Cypress Validation Utility + Calculation Check (CVU+)**
- **CVU+ seeks to address the vendor concern that the ‘certification process does not mirror a production scenario for electronic Clinical Quality Measure (eCQM) reporting’**
  - Certification uses a constrained set of test patients
  - Certification does not enforce reporting program requirements (i.e., CMS Implementation Guide)
- **CVU+ will supplement the existing certification program**
  - Use of the CVU+ is not currently a requirement of the program

## *Software Update*

# CVU+ Feature – Bring Your Own Patients

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- **Enhanced verification of a Health IT system's eCQM calculations**
  - Using a combination of Cypress-defined patients and “bring your own” (BYO) patients
- **Quality Reporting Document Architecture (QRDA) patient upload**
  - Feature demoed during 3/12/19 Tech Talk
  - A user can upload BYO patient files, specific to a Vendor
  - This will allow them to make CVU+ products with those patients
  - CVU+ products allow for more extensive testing

## *Software Update*

# CVU+ Feature – Multi-measure Tests

- **Testing that better aligns with CMS quality reporting requirements**
  - Ability to calculate across multiple measures at once
- **Multi-measure Test Creation**
  - A user can create a CVU+ tests for their product
  - A user can select which patients they want to draw from for test creation
  - Upon creation, CVU+ tests will include a multi-measure test for all Eligible Hospital (EH) measures and a multi-measure test for all Eligible Professional (EP)/Eligible Clinician (EC) measures selected
    - EH tests will test QRDA Category I reports against CMS guidelines
    - EP/EC tests will test QRDA Category III reports against CMS guidelines

# CVU+ Feature – Multi-measure Test Creation Demo

- When a user adds a product, the product creation form shows a “CVU+ Product” option to build CVU+ tests
- If they select this option, they may choose to “Include bundle patients,” “Include vendor patients,” or both (BYO Patients feature)

The screenshot displays the 'Add Product' form with the following sections and options:

- Name:** Text input field.
- Version:** Text input field.
- Description:** Text area.
- Product Types:**
  - ☐ Certification Product
  - ☒ CVU+ Product
- Records Options:**
  - ☒ Randomize Records
  - ☐ Duplicate Records
  - Recommended for most robust testing.*
- Patient Bundle:**
  - ☐ 2020 Alternative Minimal Bundle for QDM 5.4 2020.0.0.1
  - ☒ Minimal Bundle for QDM 5.4 2019.0.0.1
  - Select the measure versions Cypress should use to certify this product.*
  - ☒ Include bundle patients
  - ☒ Include vendor patients
  - Choose patient sets to include in product*
  - ☐ Shift Records
  - Selecting Shift Records will move patient data forward into the appropriate reporting period. Otherwise patient data will remain in a previously completed calendar year.*
- Measures Options:**
  - ☐ Eligible Hospital eCQMs
  - ☐ Eligible Professional eCQMs
  - ☐ All eCQMs
  - ☐ Custom...
  - Indicate the clinical quality measures Cypress should use to certify this product. Testing will be performed on a measure-by-measure basis. Click "Custom" to specify individual measures.*

At the bottom of the form are two buttons: 'Add Product' and 'Cancel'.

## Software Update

# CVU+ Feature – Multi-measure Test Creation Demo

- In creating the product, Cypress builds tests for EH Measures (QRDA Cat I) and EP/EC Measures (QRDA Cat III)
- Statuses will be shown for these two kinds of tests

cypress 5.0.x

Dashboard Master Patient List dczulada@mitre.org Admin Log Out

Dashboard Vendor: Demo Product: CVU+ Test

CVU+ Test

Edit Product Download Report

EP Measure Test EH Measure Test

☒ Passing Tests  
☐ Failing Tests  
☐ Not started Tests

Download Full Test Deck

This download contains a folder for each measure selected for this product. Inside these folders are XML documents for each patient associated with that measure.

Download All Patients (.zip)

MultiMeasureTest

Test Name	Measures	Quick Upload	Last Updated
EH Measures	CMS32v8, CMS55v7, CMS111v7	upload	Wednesday at 4:28pm
EP Measures	CMS2v8, CMS66v8, CMS136v8	upload	Wednesday at 4:28pm

# CVU+ Feature – Multi-measure Test Creation Demo

- For example, the EH Test will include all selected EH Measures
- The user can download one test deck for all EH Measures
- The user can view the patients for this test deck

cypress 5.0.x Dashboard Master Patient List dczulada@mitre.org Admin Log Out

Dashboard Vendor: Demo Product: CVU+ Test Test: EH Measures

Previous Test: Next Test:

### Test Information

**EH Measures**  
**Measures:**  
CMS32v8 (eCQM Specification)  
CMS55v7 (eCQM Specification)  
CMS111v7 (eCQM Specification)

View Patients  
Get Known Good Result

1 ⚡ Download Test Deck	2 ⚡ Upload Files
Download and import this data into your EHR clinical quality measure calculator.	Upload results from the EHR system in the form of a zip file of QRDA Category I documents to get test results. This will automatically run a test execution.
<a href="#">Download QRDA Category I (.zip)</a>	<input type="text"/> <a href="#">Select file</a>



# CVU+ Feature – Multi-measure Test Creation Demo

- The Patient List will show all patients from the test deck, filterable by measure

cypress 5.0.x

Dashboard Master Patient List dczulada@mitre.org Admin Log Out

Dashboard Vendor: Demo Product: CVU+ Test Test: EH Measures Patient List

Patient List

CMS32v8 - Median Time from ED Arrival to ED Departure for Discharge


Measures Download HTML Patients

CMS32v8 - Median Time from ED Arrival to ED Dep  
CMS55v7 - Median Time from ED Arrival to ED Dep  
CMS111v7 - Median Admit Decision Time to ED De


Patient Name	Template Name	DOB	Gender	IPOP	DENOM	NUMER	DENEXCP
Darrell Butler	John Doe	May 11, 1985	Male	●	●	●	○
Total				●	●	●	○

## Recent Issue


# Record Sample Bugs in 4.0.2 Patch Release


 CYPRESS Issue Tracker / CYPRESS-1619

### Immunization, administered not complete for Record Sample test

 Export

**Details**

Type:  Bug/Issue      Status: **IN PROGRESS**

Priority:  Moderate      Resolution: Unresolved


Labels: [KnownBug4.0.2](#) [RecordSampleBug](#)


**Description**

Duplication of issue on [google group](#) for tracking purposes.

Record Sample test for CMS 127v7 may include an Immunization, Administered data criteria. When this is correctly put into a file with the correct code and time recorded, it does not pass. Cypress is looking for an authorDatetime in an element for which there is no authorDatetime. There **shouldn't** be an authorDatetime because as the implementation guide indicates, the effectiveTime element is used for that the authorDatetime element in question.

**People**

Assignee:  Lauren DiCristofaro




Reporter:  Lauren DiCristofaro




Votes: **0** Vote for this issue



Watchers: **1** Start watching this issue




**Dates**


Created: 02/11/19 9:35 AM

**Search**  Save as  Export  Tools


 labels = KnownBug4.0.2 AND labels = RecordSampleBug  **Search** Basic 

Order by  


-  CYPRESS-1629  
500 Server Error when loa...
-  CYPRESS-1627  
"C1 Execution: An internal ...
-  CYPRESS-1619  
Immunization, administere...

 CYPRESS Issue Tracker / CYPRESS-1629


### 500 Server Error when loading C1 Sample including STK-6

 Export

**Details**

Type:  Bug/Issue

Status: **IN PROGRESS**


Priority:  Moderate


Resolution: Unresolved

Labels: [KnownBug4.0.2](#) [RecordSampleBug](#)

Impact: Unable to open C1 Sample for CMS 105 (STK-6)

**People**

Assignee:  Lauren DiCristofaro

Reporter:  Alex Liu

Votes: **0**

## Recent Issue

# 4.0.2 Record Sample Bugs

- [CYPRESS-1619](#): Immunization, Administered authorDatetime in Record Sample
- [CYPRESS-1627](#): Substance, Administered template not found in Record Sample submissions
- [CYPRESS-1629](#): Criteria (LDL-c) in CMS105v7 causes error when accessing Record Sample
- **Workaround:**
  - Only necessary if Record Sample Test is generated with problematic criteria
  - That data criteria may be swapped out for any other available data criteria option
  - May reach out to Authorized Testing Laboratory (ATL) to edit the test and swap this criteria
  - Search with [labels = KnownBug4.0.2 AND labels = RecordSampleBug](#) to find marked relevant bugs

# Cypress Versions

Version	Dates	Measures Supported
V 3.2.3	December 14, 2017	Support for the electronic clinical quality measures (eCQM) for the 2018 Reporting/Performance Period. <b>*will be supported alongside Cypress v4</b>
<b>V4.0.1</b>	<b>October 11, 2018</b>	Support for the eCQMs for the 2019 Reporting/Performance Period Support for Clinical Quality Language (CQL) calculation.
<b>V4.0.2</b>	<b>January 31, 2019</b>	

Bundle Version	Dates	Features
2017.0.3	April 24, 2018	<b>Cypress v3 only</b> “Z1 BH Adult” updated for CMS128v6
2017.0.4	September 25, 2018	<b>Cypress v3 only</b> Errata update to fix ‘Download All Patients’ feature when 2017.0.3 and 2017.0.2 are installed simultaneously.
2018.0.1	July 26, 2018	<b>Cypress v4 only</b> CQL-based measures released in 2018 for the 2019 reporting year eCQM Value Sets as of 5/4/2018.
<b>2018.1.0</b>	<b>October 11, 2018</b>	<b>Cypress v4 only</b> CQL-based measures released in 2018 for the 2019 reporting year eCQM Value Sets as of 9/17/2018.

# OPEN DISCUSSION

# Next Cypress Tech Talk

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- Tuesday, April 9, 2019 at 1pm ET
- To join online, visit:  
<https://meetings.cms.gov/orion/joinmeeting.do?MTID=98271705d4bc4ad148cf1e39d5c7408>
- To join via phone, dial: 1-877-267-1577
- Meeting Number: 998 084 717
- Meeting link, as well as a calendar event file, available at:
  - <https://www.healthit.gov/cypress/techtalks.html>

# Notes

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- **Completed Webinars will be posted on the Cypress website on the Timeline tab**
  - <https://www.healthit.gov/cypress/techtalks.html>
- **Send questions and feedback to the Cypress Talk List at**
  - [project-cypress-talk@googlegroups.com](mailto:project-cypress-talk@googlegroups.com)
- **Report bugs and issues to the Cypress JIRA at**
  - <https://oncprojecttracking.healthit.gov/support/browse/CYPRESS>